Kindly amend this application as indicated herein.

IN THE SPECIFICATION

Please replace the paragraph on page 18, beginning on line 8 with the following

paragraph:

Figure 11a shows a MATLAB code 62 for multiplication of two real numbers. Figure 11b shows the normal representation code 64 if both numbers are scaled down by the largest integer value of 255 to get the value within −1 and +1; the number of decimal bits needed to represent the transformed number may be as high as 32 bits, i.e., to limit error in calculating the result, resulting in instantiation of a 64-bit integer multiplier. Further, since variables in the input code have to be scaled down by the maximum integer, this approach results in real variables requiring 32 bits leading to a large consumption of processing resources. Thus, in accordance with one aspect of the present invention, real numbers are represented by integer and fractional parts. Figure 11c shows the resulting transformed code 66. Transformation results in instantiation of a 13-bit multiplier, with no error in output calculation.

Please replace the paragraph on page 3, beginning on line 11 with the following

paragraph:

The proposed novel electronic design tool and methodology enables automatic synthesis from ~~programming languages,~~ interpretive, dynamically-typed, algorithmic language, such as MATLAB™, developed and marketed by the MathWorks, Inc. of Natick, Massachusetts. The use of "MATLAB" will refer to any interpretive, dynamically-typed, algorithmic language. A MATLAB program is compiled into a high-level format, such as RTL-VHDL (Register Transfer Level – VLSI Hardware Description Language) or RTL Verilog, which is synthesized using computer-assisted tools to develop ASIC masks or FPGA configurations. Present methodology and system employs MATLAB, having a large number of associated functions providing various constructs, such as operation on multi-dimensional arrays, function call statements, conditional statements, or loop statements.